

Service Manual of the 2010-X Remote controller

Features:

1. The effect of IC light source (TM1803, TM1804, TM1809, TM1812, etc.) could be controlled by the remote controller or the keystroke.
2. Types : High speed(maximum control:2048 points) and Low speed((maximum control:1024 points)
3. The output interface could be controlled by three routes(the maximum control is 2048 points in each route)
4. The information will be auto saved when you turn off
5. 100 kinds of effect models installed internally.
6. 10 kinds of speed levels could be set up.
7. The connected points in a dynamic state could be adjusted (maximum control: 2048 points).



Video:

Free run mode: http://v.youku.com/v_show/id_XMTU4NjkzMdc2.html

Auto run mode: http://v.youku.com/v_show/id_XMTU4Njk2NTI0.html

Function instruction:

2010-X remote controller installed 100 kinds of effect models which can be equipped selectively according with user and could control colorful effect model with the remote controller or the keystroke. Several modes inside are set for our choice. They are: operator schema which can change the effect mode by the remote controller or keystroke; free schema which installed some settled effect models; auto play schema which play circularly in order. TH 2010-X remote controller which has 10 speed levels (maximum control: 2048 points) and 4 digitrons is fit for application occasion of TM1805, TM1804, TM1809, TM1812. Two types of mode - high speed and low speed which can be chosen according to the IC mode and the connection style of the IC SET pins. When the parameter changed, it will turn off and autosave the information.

Keystroke instruction:

Mode: mode change (turn on)/menu set (off)

Speed+: speed+(turn on)/menu+(turn off-menu set)

Speed-: speed-(turn on)/menu-(turn off-menu set)

On/off: turn on or turn off

Application instruction:

On/off: turn on or turn off with the on/off key. If the parameters change, it will autosave the information when you turn off.

Speed: Please press the keystroke of mode to change the effect when you turn on the controller.

Menu: you just have one chance to set up the menu when the current is switched on. Please don't press other keystroke, for example, you will lose the chance to set up the menu if press the button of mode. The correct step is as follows: firstly, press the button of on/off to turn off the controller, then set up the menu with pressing the keystroke of mode, at this moment, the digitron shows "P-HI"(high speed) and "P-LO"(low speed). You could choose High speed (P-HI) and Low speed(P-LO) through the keystrokes of speed+ and speed-. Secondly, press the button of mode to the menu to change the points. At this time, the numbers on the digitron which refer to the cascade points are used to increase or decrease the points by speed+ and speed-. Finally, press the keystroke to save the changes.

NOTE: if you have lost your chance to set up the menu, please press the keystrokes of mode, speed+ and speed- at to resume while you turn off the controller.

Digitron Showing Introduction:

H-XX: operator schema, H means operator schema (the colorful pattern was changed by the controller or the keystroke). XX stands for the order number of the patterns in playing.

Mode 99(H-99) refers to free schema which installed some fixed modes.

Mode0 (H-00): it will turn to auto play schema after one second.

A- XX: auto-play schema, A means auto-play orderly. XX refers to the number of the effect. Press the keystroke of mode to enter the operator schema which you can change the mode by the controller or the keystroke when you are in auto-play mode.

E-XX: display speed. E indicates speed; XX means the grade of the speed.

P-HI: high speed

P-LO: low speed

XXXX: cascade point, 0000-2048

ERR: critical error in the system

Technical Parameters:

Input voltage: DC 12V

Interface controller:

+12V: power supply

GND: earth

DIO: input the data through channel 1

CLK: input the data through channel 2

ST: input the data through channel 3(only 2010A, 2010-AA owns this function)

RXD, TXD: serial communication (reserved)

1	Rainbow colors blinking jump change	2	Rainbow colors direct jump change
3	Rainbow colors respiration	4	Rainbow colors gradual change
5	Dream color gradual change	6	Rainbow colors cumulus
7	Rainbow colors shield on both sides	8	Rainbow colors lighting on both sides
9	Rainbow colors spread to right	10	Rainbow colors spread to left
11	Rainbow colors blinking shield on both sides	12	Rainbow colors blinking lighting on both sides
13	Rainbow colors blinking shield on both sides with background pictures	14	Rainbow colors blinking lighting on both sides with background pictures

15	Rainbow colors chasing from left to right without background pictures	16	Rainbow colors chasing from left to right with background pictures
17	Dream color chasing from left to right without background pictures	18	Dream color chasing from left to right with background pictures
19	Rainbow colors cross shield lighting on both sides	20	Rainbow colors trailing open and close
21	Rainbow colors trailing close	22	Rainbow colors trailing open
23	Rainbow colors cross trailing	24	Rainbow colors cross shield waving lighting
25	Rainbow colors waving open	26	Rainbow colors waving close

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27	Rainbow colors waving close unremittingly	28	Rainbow colors waving close unremittingly
29	Dream color waving close unremitting	30	Dream color waving open unremittingly
31	Dream color waving right	32	Dream color waving left
33	Dream color shifted to right	34	Dream color shifted to left
35	Reverse rainbow colors comet trailing right	36	Reverse rainbow colors comet trailing left
37	Forward rainbow colors comet trailing right	38	Forward rainbow colors comet trailing left
39	Reverse rainbow colors comet trailing close	40	Reverse rainbow colors comet trailing open
41	Forward rainbow colors comet trailing close	42	Forward rainbow colors comet trailing open
43	Reverse mono-color comet trailing right	44	Reverse mono-color comet trailing left
45	Forward mono-color comet trailing right	46	Forward mono-color comet trailing left
47	Reverse mono-color comet trailing close	48	Reverse mono-color comet trailing open
49	Forward mono-color comet trailing close	50	Forward mono-color comet trailing open
51	Dream color waving from left to right	52	Dream color shifted from left to right
53	Rainbow colors waving left	54	Rainbow colors waving right
55	Rainbow colors waving from left to right	56	Segmentation dream color gradual change
57	Rainbow colors cross waving unremittingly	58	Dream color cross waving unremittingly

59	Rainbow colors cumulus with background picture	60	Rainbow colors trailing on both sides
61	Integrated rainbow colors cumulus open	62	Integrated rainbow colors cross cumulus
63	Integrated rainbow colors cumulus open with background picture	64	Integrated rainbow colors cross cumulus with background picture
65	Integrated rainbow colors shield open	66	Integrated rainbow colors lighting open
67	Integrated rainbow colors cross shield	68	Integrated rainbow colors cross lighting
69	Integrated rainbow colors waving right	70	Integrated rainbow colors waving left
71	Integrated rainbow colors waving open	72	Integrated rainbow colors waving close
73	Integrated rainbow colors cross waving	74	Integrated rainbow colors chasing left
75	Integrated rainbow colors chasing right	76	Integrated rainbow colors chasing from left to right
77	Integrated rainbow colors chasing close	78	Integrated dream color waving right
79	Integrated dream color waving left	80	Integrated rainbow colors chasing from left to right with background pictures
81	Integrated rainbow colors cross chasing with background pictures	82	Integrated dream colors chasing left without background
83	Integrated dream chasing without background pictures	84	Integrated dream color chasing from left to right without background picture
85	Integrated dream color chasing without background pictures	86	Integrated dream color chasing left with background pictures
87	Integrated dream color chasing right with	88	Integrated dream color



	background pictures		chasing from left to right with background colors
89	Integrated dream color cross chasing with background pictures	90	Integrated rainbow color cross shield lighting
91	Integrated rainbow colors cross open and close	92	Integrated rainbow color waving open at the same time
93	Integrated rainbow colors cross waving at the same time	94	Integrated rainbow color cross waving unremittingly
95	Integrated rainbow color blinking cross waving with background pictures	96	Integrated waving close
97	Integrated waving open	98	Integrated cross waving
99	Free mode		

The introduction of the controller's model

model	Point	description
TH2010-A	Low speed:512 points High speed:1024 points	With the controller and keystroke
TH2010-B	low speed: 512 points high speed:1024 points	With keystroke